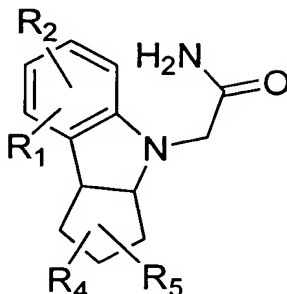


**What is Claimed:**

1. A compound of the formula:



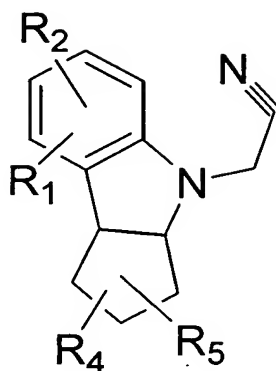
- 5 wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> and R<sub>5</sub> are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO<sub>2</sub>-alkyl of 1-6 carbon atoms, -SO<sub>2</sub>-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

2. A compound of Claim 1 wherein R<sub>1</sub> and R<sub>2</sub> are hydrogen, and R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.

3. A compound of Claim 1 wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>4</sub> are hydrogen, and R<sub>5</sub> is as defined in Claim 1.

4. A compound of Claim 1 which is 2-(2,3,3a,8b-Tetrahydro-1H-cyclopenta[b]indol-4-yl)-acetamide.

5. A compound of the formula:



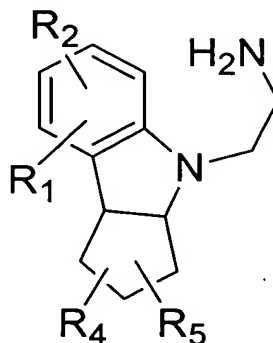
wherein  $R_1$ ,  $R_2$ ,  $R_4$  and  $R_5$  are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO<sub>2</sub>-alkyl of 1-6 carbon atoms, -SO<sub>2</sub>-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

6. A compound of Claim 5 wherein  $R_1$  and  $R_2$  are hydrogen, and  $R_4$  and  $R_5$  are as defined in Claim 1.

7. A compound of Claim 5 wherein  $R_1$ ,  $R_2$  and  $R_4$  are hydrogen, and  $R_5$  is as defined in Claim 1.

8. A compound of Claim 5 which is 2-(2,3,3a,8b-Tetrahydro-1H-cyclopenta[b]indol-4-yl)-acetonitrile.

9. A compound of the formula:



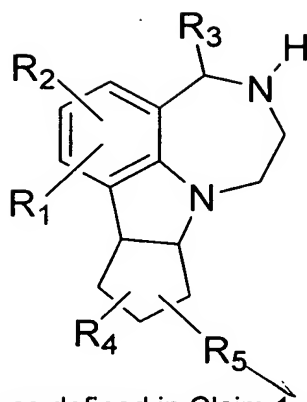
wherein  $R_1$ ,  $R_2$ ,  $R_4$  and  $R_5$  are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO<sub>2</sub>-alkyl of 1-6 carbon atoms, -SO<sub>2</sub>-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

10. A compound of Claim 5 wherein  $R_1$  and  $R_2$  are hydrogen, and  $R_4$  and  $R_5$  are as defined in Claim 1.

11. A compound of Claim 5 wherein  $R_1$ ,  $R_2$  and  $R_4$  are hydrogen, and  $R_5$  is as defined in Claim 1.

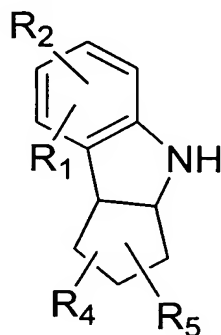
12. A compound of Claim 5 which is 2-(2,3,3a,8b-Tetrahydro-1H-cyclopenta[b]indol-4-yl)- ethylamine.

13. A process for synthesis of a compound of the formula:

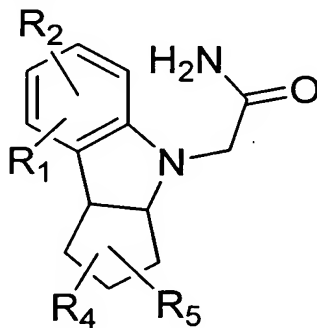


wherein  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$  and  $R_5$  are as defined in Claim 1, the process comprising the steps of:

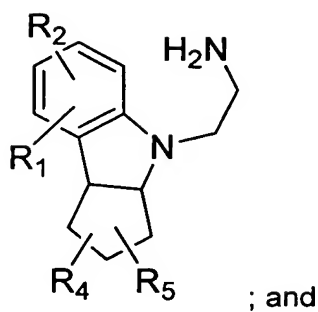
- a) converting a cyclopenta[b]indole compound of the formula:



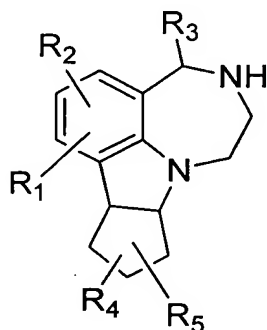
to an optionally substituted cyclopenta[b]indol-4-ylacetamide compound of the formula:



- b) reducing the optionally substituted cyclopenta[b]indol-4-ylacetamide of step a) to the corresponding optionally substituted cyclopenta[b]indol-4-yl-amine of the formula:

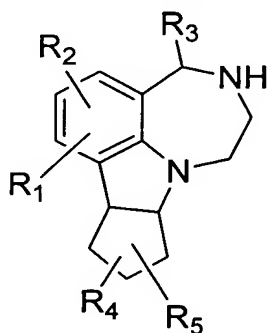


c) cyclizing the cyclopenta[b]indol-4-yl-amine of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

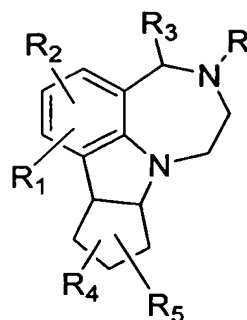


5

14. The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

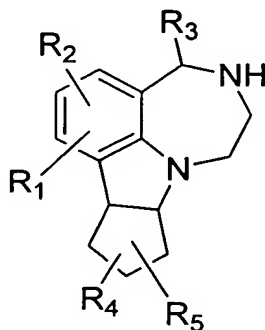


10 with an alkylating agent to produce a compound of the formula:

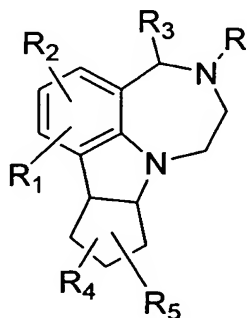


wherein R is alkyl of from 1 to 6 carbon atoms and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.

15. The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

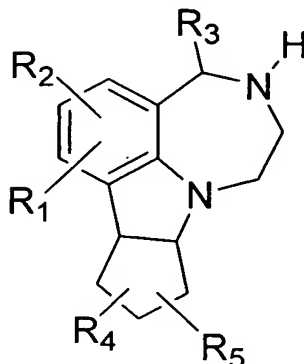


with an acylating agent to produce a compound of the formula:



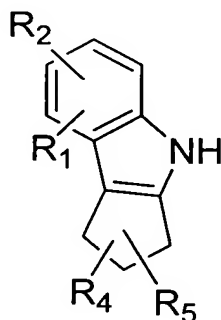
- wherein R is  $-C(O)R'$ ; R' is alkyl of from 1 to 6 carbon atoms or aryl; and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.

16. A process for preparing a compound of the formula:

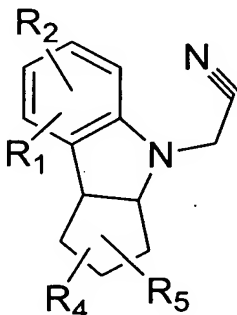


wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1, the process comprising the steps of:

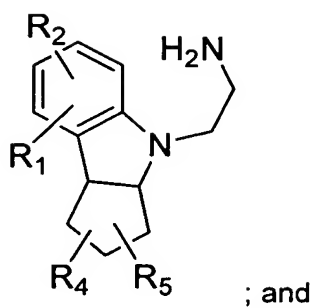
- 5 a) converting an optionally substituted cyclopenta[b]indole compound of the formula:



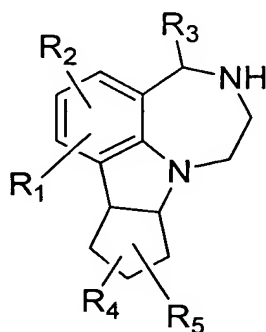
to an optionally substituted nitrile compound of the formula:



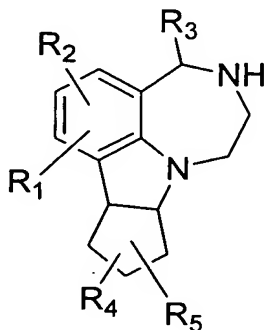
- 10 b) reducing the optionally substituted nitrile compound of step a) to provide an optionally substituted amine compound of the formula:



c) cyclizing the amine compound of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

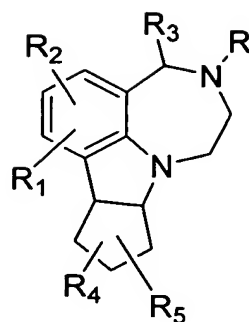


The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



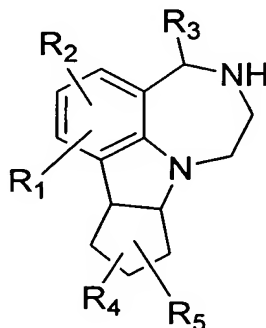
with an alkylating agent to produce a compound of the formula:



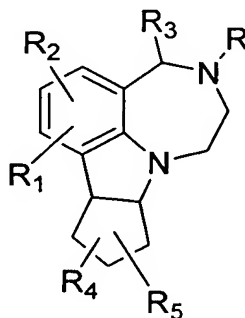


wherein R is alkyl of from 1 to 6 carbon atoms and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.

*Rule 1.18* 18. The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



with an acylating agent to produce a compound of the formula:



- 10 wherein R is -C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl; and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.